

REMARKS/ARGUMENTS

Favorable reconsideration of this application as currently amended and in view of the following remarks is respectfully requested.

Claims 1-7, 21 – 28 are currently active in this case. Claims 8-20 have been withdrawn, and Claims 21 – 28 have been added by the present amendment.

In the outstanding Office Action, Claims 1-5 were rejected under 35 U.S.C. §103(a) as being unpatentable over “Applicant’s admission of prior art (AAPA)” in view of U.S. Patent 5,859,677 to Watanabe et al.; and Claims 6 and 7 were rejected under 35 U.S.C. §103(a) as being unpatentable over “AAPA” in view of Watanabe et al. and U.S. patent 6,788,356 to Song.

Briefly recapitulating, the present invention is directed to a liquid crystal display including a plurality of pixel areas. Each pixel area includes a pixel electrode formed over a pixel area; a switching element formed on a first gate line; and a first shielding layer electrically connected to the first gate line. The electrical connection between the shielding layer and the gate line provides an increased aperture ratio of the TFT-LCD device, a reduced coupling effect between a data line and a pixel electrode, a complimentary storage capacitor, and an operative path for repairing an open gate line. See the specification at page 3, lines 28-33. Further, because the switching element is formed on the first gate line, the pixel area has a larger transparent area. See Figures 3C, 3D, and 3E. Moreover, see the specification at page 6, lines 11-15.

The Official Action asserts in the second paragraph on page 4 that in view of the teachings of Watanabe it would have been obvious to have a light shielding layer electrically connected to the first gate line because one would be motivated to provide potential stability which serves to suppress liquid crystal disclination that becomes a cause for coarse image appearance and residual image. Applicants respectfully traverse.

Applicants submit that Watanabe does not teach or suggest an LCD having a light shielding layer that is electrically connected to the gate line. Rather, Watanabe et al. merely teach that the TFT back channel side conductive light shielding film 140 is connected to the TFT side conductive light shielding film 116. See Figure 17 of Watanabe et al. Further, the switching element disclosed in Watanabe et al. reduces the transparent area of the pixel electrode. Consequently, a person of ordinary skill in the art would not have been taught the electrical connection feature of the claimed invention or been motivated to modify the shielding layer 22a or 22b of Fig 1B of the Specification to extend to the gate line 12a in view of Watanabe et al.

For the foregoing reasons, the AAPA in view of Watanabe et al. is not believed to render obvious the subject matter defined by Claims 1-7.


Newly added claim 21 depends from claim 3 and further defines that the first and second shielding layers are black matrix layers. Watanabe et al. do not teach or suggest using black matrix layers as shielding layers. Newly added claim 22 depends from claim 1 and further defines that the first shielding layer and the first gate line are formed by the same metal layer. For the reasons provided above, Watanabe et al. do not teach or suggest that the first shielding layer and the first gate line are formed by the same metal layer. Consequently, claims 21 and 22 are believed to be allowable. Newly added claims 23 – 28 are also believed to be allowable for at least the same reasons that claim 1 is believed to be allowable.

Consequently, in view of the above remarks, no further issues are believed to be outstanding in the present application. An early and favorable action is respectfully requested.

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Respectfully submitted,

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